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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/503,676	02/14/2000	Michael Joseph Johnson	RAL9-99-0124	7028

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EXAMINER	
WON, YOUNG N	

ART UNIT	PAPER NUMBER
2155	6

DATE MAILED: 05/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PPG

Office Action Summary	Application No.	Applicant(s)	
	09/503,676	JOHNSON, MICHAEL JOSEPH	
	Examiner	Art Unit	
	Young N Won	2155	

-- The MAILING DATE of this communication appears on the cover she t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-28 have been re-examined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher et al. (US 6226680 B1) in view of Isfeld et al. (US 5828835 A).

As per claims 1, 2, 6, 10, 11, 15, 19, 20, 24, and 28, Boucher teaches about a network having a plurality of computer systems each including a processor, a memory (see col.5, lines 9-11), and a network adapter (see col.5, line 2), the memory containing a data structure used for storing a common data buffer (see col.5, lines 10-11), a common data buffer containing the application data being sent or received and including free space preceding the application data (see col.6, lines 6-11; and col.10, lines 4-17), a method (see col.3, line 41), a computer system (see col.3, lines 35-36), and a computer readable medium containing a computer program (see col.2, lines 29-31), for the sending and receiving of application program data by layers or sub-layers of at least one communications protocol without recopying of the application program data (see col.3, lines 56-64), comprising: under control of a sending computer system, adding an

appropriate header to the slice of data being sent by placing the header in the common data buffer immediately preceding the location within the common data buffer pointed to by the start pointer (see col.2, lines 39-54); and invoking a send procedure of a next lower protocol layer and transferring by an address reference the slice of data to be sent by the next lower protocol layer (see col.2, lines 35-54); under control of a receiving computer system, invoking a receive method of a next lower protocol layer (see col.2, lines 55-67); processing and removing any header added to a received slice of data from tile send procedure of the same protocol layer level on the sending computer system (see col.6, lines 56-64); and exiting and returning by an address reference to a receive procedure of a next higher protocol layer the received slice of data (see col.6, line 60 to col.7, line 5). Although Boucher teaches of "adjusting" the pointer (see col.19, lines 34-41), he does not explicitly teach of storing in a plurality of pointers to locations within the common data buffer, a start and an end location of a next slice of data being sent; adjusting the start pointer to point to a memory location within the common data buffer of a first byte of the header added to the data contained in the common data buffer when preparing to send; and adjusting a start pointer to point to a first memory location within the common data buffer following the header when receiving. Isfeld teaches of storing in a plurality of pointers to locations within the common data buffer, a start and an end location of a next slice of data being sent (see col.12, lines 10-25); adjusting the start pointer to point to a memory location within the common data buffer of a first byte of the header added to the data contained in the common data buffer when preparing to send (see col.8, lines 37-65; and col.12, lines 26-39); and adjusting a

start pointer to point to a first memory location within the common data buffer following the header when receiving (see col.13, lines 4-25). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Isfeld within the system of Boucher, by implementing pointers to point to the start and end of the compounded data, and adjust as the data become large or small from the generating to send and processing to receive, within the system of Boucher, because Boucher teaches of adding and removing pointers to manage the queues of data (see col.19, lines 38-39) and without such pointers and their ability to be adjusted, the application program data would be missing some data or contain errors.

As per claims 3, 12, and 21, Boucher further teaches wherein a checksum is added to the header in the common data buffer preceding the slice of data being sent (see col.8, line 67 to col.9, line 3).

As per claims 5, 14, and 23, Boucher does not explicitly teach of adjusting size of the slice of data to be sent by the next lower protocol layer by adjusting the end pointer. It would be inherent to one of ordinary skill in the art that when data is added to an existing data, the end pointer would be adjusted to point to the end location of the buffer otherwise, the newly added data would be incorrect and missing. Also, the starting pointer would not be adjusted because data, in most cases, the starting pointer begins after where another data ends, therefore to avoid loss or data or incorrect data, the end pointer would have to be adjusted.

As per claim 4, 13, and 22, Boucher further teaches wherein the transferring step includes any application data or information required by the send procedure of the next lower protocol layer (see col.2, lines 35-54; and col.11, lines 27-42).

As per claims 7, 16, and 25, Boucher further wherein a checksum following the header and added by the sending computer system is removed from the received slice of data in the common data buffer (see col.7, lines 21-24).

As per claims 8, 17, 26, wherein the checksum is removed by adjusting the start pointer of the data buffer to point to the memory location following the checksum (see col.7, lines 21-27). Also, it would be inherent that the start pointer be adjusted otherwise the data would include the checksum bit or bits as being part of the header, thus causing the data to be corrupted

As per claims 9, 18, and 27, Boucher further teaches of comprising the step of transferring any application data or information required by the receive procedure of the next higher protocol layer (see col.6, line 54 to col.7, line 5).

Response to Remarks

3. In regards to the arguments of claim 1, it is inherent that when data is sent to and from a location that implements the functionality of a buffer (see Boucher: col.3, lines 41-45), the header which precedes the data are stored in a buffer (see Boucher: col.7, lines 26-27) in similar fashion before the transmission. Applicant's arguments do not

comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made.

4. In regards to the reference of Isfeld et al., although, Isfeld does not explicitly teach of "adjusting", the reference location was to teach the claim limitation of pointing to the buffer. Such "adjusting" is inherent since pointers change as memory changes. Furthermore, to clarify such non-inventive feature, claim 1 includes a reference location to appease the argument.

5. Further arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made.

6. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

7. Claims 2-28 remains rejected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Young N Won whose telephone number is 703-605-4241. The examiner can normally be reached on M-Th: 8AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Young N Won

April 21, 2003

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100